

EXECUTIVE SUMMARY

RHODE ISLAND'S S&T PLAN AND FRAMEWORK

A 5-Year Investment Strategy to Enhance
Competitiveness in Science and
Technology and Drive Economic Growth

Performed For: Rhode Island Science and Technology Advisory Council
Performed By: TEconomy Partners, LLC

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TEconomy Partners, LLC is a global leader in research, analysis, and strategy for innovation-driven economic development. Today, we're helping nations, states, regions, universities, and industries blueprint their future and translate knowledge into prosperity.

Cover image credit: Polaris Tech Bridge BlueTIDE event showing Havoc AI vehicles.

A SHARED PATH FORWARD FOR RHODE ISLAND'S INNOVATION ECONOMY

The Rhode Island Science and Technology Advisory Council (STAC) presents Rhode Island's Science & Technology Plan and Framework, a five-year strategy to strengthen our innovation economy, grow high-quality jobs, and position the state for long-term resilience.

This Plan arrives at a pivotal moment for Rhode Island. Our State's future prosperity will be shaped not only by the strength of our research institutions or the scale of our industries, but by how effectively we connect discovery to deployment—turning innovation into new products, new companies, and higher-wage jobs. In an economy increasingly defined by speed, specialization, and global competition, states that succeed are those that create a thriving innovation engine.

Rhode Island possesses distinctive, place-based advantages: a thriving maritime and defense ecosystem; nationally recognized strengths in ocean science, neuroscience, and aging; world-class research and testing assets; and a compact geography that fosters rapid collaboration across academia, industry, and government. At the same time, we face real challenges: talent and capital constraints, barriers to maximizing research translation, and rising competition for federal research and innovation investment.

This Plan focuses on science and technology areas where Rhode Island can lead, describes pathways to translate research to real economic opportunity, and outlines practical actions to strengthen commercialization, expand shared infrastructure, mobilize capital, and build the talent pipelines needed for future growth. Most importantly, it outlines a framework for a system that makes innovation repeatable, inclusive, and economically meaningful.

This Plan is intended to guide coordinated public- and private-sector action, inform investment decisions, and position Rhode Island to compete successfully for federal programs that increasingly reward statewide alignment and measurable outcomes. Innovation is not just about new technologies. It is about good jobs, stronger industries, resilient communities, and an economy that works for more Rhode Islanders. By aligning our research enterprise with industry and workforce needs, and by meeting the growing expectations for collaboration, Rhode Island can attract new investment and increase the economic benefits of innovation.

Success will depend on productive collaboration among state leadership, educators, businesses, entrepreneurs, workers, and communities. STAC is committed to helping convene this effort and to ensuring our innovation ecosystem is aligned, accessible, and working for all Rhode Islanders.

We thank the many Rhode Islanders who contributed their time, insight, and expertise to this effort, and we look forward to working together to turn this strategy into results.



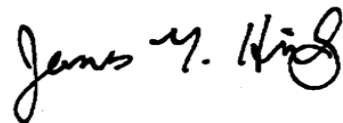
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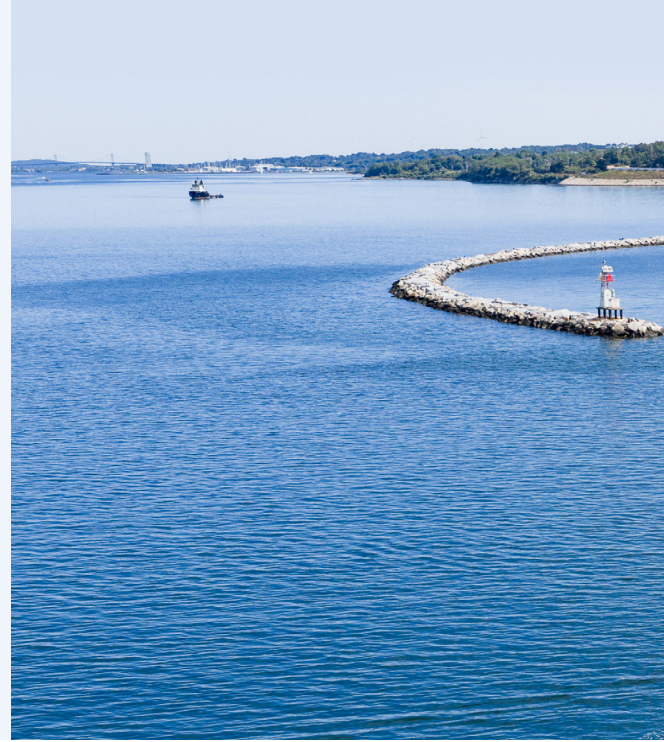
EXECUTIVE SUMMARY

In an economy increasingly defined by knowledge, speed, and global competition, innovation has emerged as the most reliable engine of sustained growth, high-quality employment, and rising living standards. The states that pull ahead are those that can consistently generate new knowledge and convert it into real-world advantage—new technologies, better solutions to pressing challenges, and stronger industries that can compete in global markets. As scientific discovery accelerates and technology cycles shorten, the margin between leading and lagging places is increasingly determined by how quickly ideas move from concept to capability and from capability to scale.

The most competitive states, therefore, build innovation ecosystems—not simply research enterprises—that connect institutions, people, and resources into a functioning pipeline from ideation to market impact. These ecosystems link universities, laboratories, and clinical or applied research settings with industry through shared-use facilities, talent pipelines, and collaborative problem-solving that aligns scientific capability with real operational demands. They also supply the “connective tissue” that makes progress repeatable: technology transfer capacity, proof-of-concept funding, prototyping and testing infrastructure, regulatory and reimbursement expertise where relevant, mentorship and entrepreneurship support, and coordinated access to capital across stages—from seed and early validation to growth financing. When this infrastructure is present, innovators can move more seamlessly from discovery to demonstration, from demonstration to commercialization, and from commercialization to scaling across new and existing industries.

When these elements align, R&D investment becomes a multiplier rather than a cost center. It attracts external funding and partners, expands specialized employment, and generates intellectual property that can anchor new enterprise formation. It also strengthens existing industries by enabling technology-based solutions to persistent problems—improving processes, reducing costs, raising quality, accelerating time-to-market, and enabling product innovation. Over time, these effects compound: commercialization contributes to new business creation and diversification, while productivity gains increase competitiveness and help firms retain and grow higher-wage jobs. The result is a broader base of exports and income generation, stronger local and state tax revenues, and a more sustainable economic trajectory.

Ocean State Accelerates is Rhode Island’s blueprint for the future. It serves as the State’s 2023–2028 Comprehensive Economic Development Strategy (CEDS) and Long-Term Economic Development Vision and Policy and continues the RI2030 vision with robust data analytics and invaluable insights from a diverse array of public, private, and institutional stakeholders. This S&T Plan recognizes Ocean State Accelerates and the RI 2030 Plan and builds upon these initiatives with comprehensive strategies for driving innovation in Rhode Island.



In a global economy where knowledge and innovation increasingly determine competitiveness, Rhode Island’s future prosperity will hinge on how effectively it converts scientific and technological strengths into new products, new companies, and higher-value growth across existing industries. The Ocean State’s advantages are distinctly place-based: a compact geography that enables fast collaboration; 400 miles of coastline that anchors a modern blue economy; deep-water ports that connect the state to trade and naval defense; and a dense network of assets—including thirteen institutions of higher education, a significant naval presence, and a growing, connected health care system—that continuously attract talent and expand research capacity. These characteristics make Rhode Island not only a center of specialized expertise, but also a living laboratory where domains can intersect, share infrastructure, and move quickly from idea to impact.

Purpose of the Rhode Island’s S&T Plan and Framework

Against this backdrop, the Rhode Island Science and Technology Advisory Council (STAC) commissioned this Science and Technology (S&T) Strategy, a natural extension of its mission and responsibilities. STAC is the State’s cross-sector leadership body for science, technology, and innovation—established by executive order in 2005 and codified in statute in 2006—and is charged with ensuring that Rhode Island’s research and technology development translate into stronger economic outcomes, including commercialization, innovation-driven business growth, and job creation. STAC assists state leadership by advancing programs and policies that increase R&D, encourage entrepreneurship through technology transfer, and enable innovation by strengthening the conditions needed to compete in world markets.

This S&T Plan provides an evidence-based framework to align research assets with industry needs, identify gaps that slow commercialization, coordinate investments across the innovation ecosystem, and position Rhode Island to remain competitive for key federal research and capacity-building opportunities. TEconomy Partners LLC, a global leader in research, analysis and strategy for innovation-driven economic development, was engaged to lead the assessment in close collaboration with STAC and its stakeholders.



Credit: Polaris Tech Bridge BlueTIDE event

Through quantitative analysis and extensive stakeholder engagement—nearly 200 Rhode Islanders across business, academia, and government contributed insights through interviews, small-group discussions, and surveys—this report examines how Rhode Island can convert research strengths into market impact, identify ecosystem gaps that slow translation, and implement targeted strategies that accelerate innovation-driven prosperity over the long term. It focuses on the practical requirements of a high-performing innovation continuum—where discovery is connected to deployment—and on the coordinated public-private actions needed to strengthen the institutions, networks, and investment mechanisms that make innovation not episodic, but systematic.

Rhode Island's opportunity is to unify its science and technology identity while deliberately strengthening the continuum that moves concepts into viable products, new markets, and scaled enterprises. Through coordinated actions to increase connectivity and communication, enhance enabling infrastructure, and simplify commercialization and translation, Rhode Island can leverage its unique assets to build a vibrant, flexible, and more inclusive innovation economy—one that grows high-quality jobs, expands economic resilience, and sustains the Ocean State's long-term competitiveness.

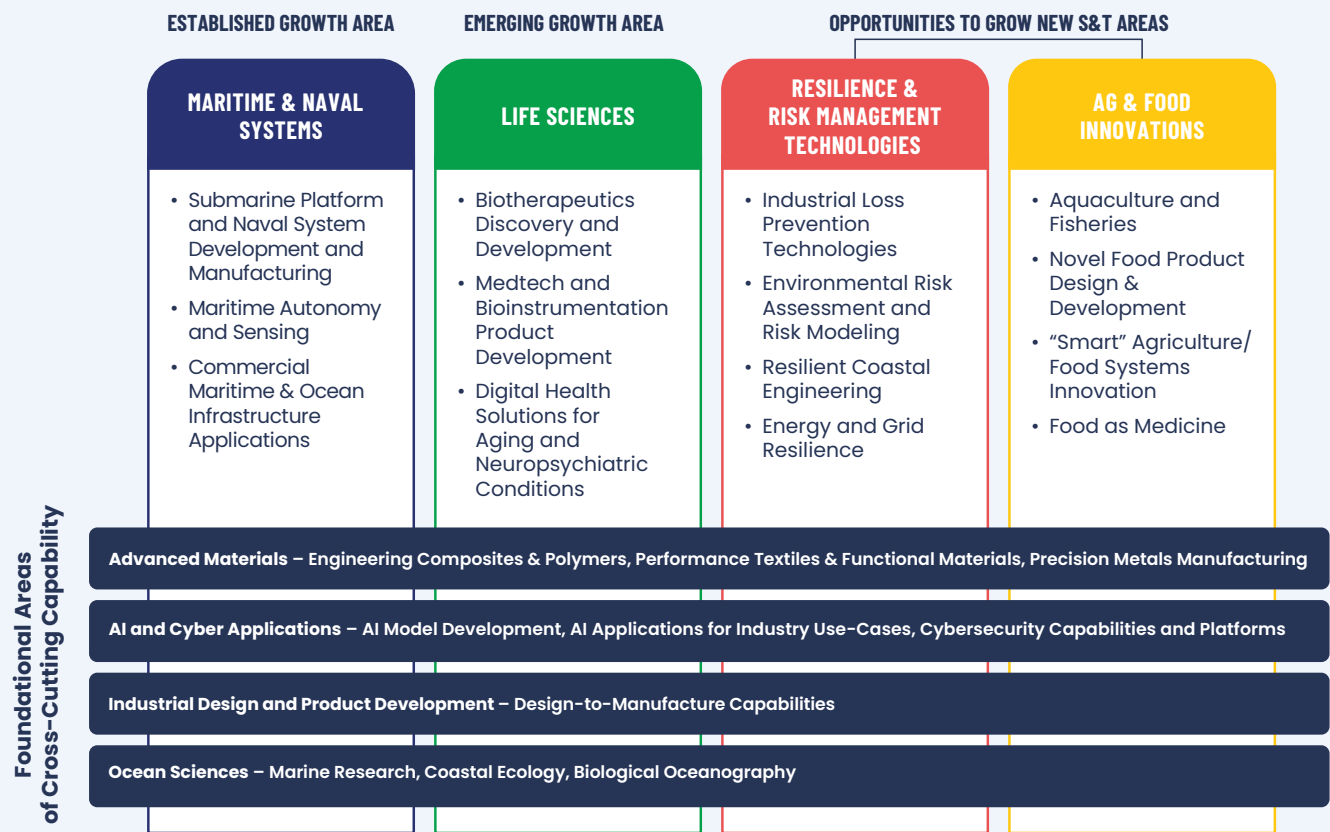
Identification of Rhode Island's S&T Growth Opportunities

To maintain competitiveness and ensure long-term economic resilience, Rhode Island must build on its legacy of reinvention—from maritime enterprise to industrial manufacturing—and responds to the urgency of today's challenges: slower growth in traded sectors, a pressing need for skills-building and opportunity expansion, and the high stakes of competing in "winner-take-all" innovation markets.

To better understand the alignment of Rhode Island's industrial innovation needs with the core competencies of its research institutions, a rigorous, data-driven approach was undertaken to identify S&T opportunity areas that Rhode Island should target for future economic growth. The intersection of where Rhode Island excels in the "market pull" of industrial innovation activities and the "technology push" of research capabilities represents the greatest opportunities for future economic growth.

Ultimately, four opportunity areas were identified (Figure ES-1). These opportunities can be considered those areas in which Rhode Island is best positioned to compete in growing, innovation-led markets that can help sustain the state’s leading industry sectors as well as advance emerging markets in new industries of the future. Each of these growth opportunity areas are supported by cross-cutting foundational areas of expertise and capabilities that enable innovation and technology development.

Figure ES-1.
Rhode Island’s S&T Growth Opportunity Areas



Source: TEconomy Partners, LLC



Credit: Polaris Tech Bridge BlueTIDE event

Naval and Maritime Systems (Established Opportunity Area)

Scope: Submarine platform and naval system development and manufacturing; maritime autonomy and sensing; and commercial maritime and ocean infrastructure applications (including marine electrification and battery systems, offshore wind and marine renewables, and ocean engineering).

Rationale: An unusually dense ecosystem— Naval Undersea Warfare Center Division Newport (NUWC Newport), General Dynamics Electric Boat at Quonset Point, the University of Rhode Island's (URI's) Graduate School of Oceanography and Ocean Engineering, and accessible test ranges in Narragansett Bay—creates the full value chain required to conceive, test, and field advanced ocean technologies. This concentration enables rapid iteration between research, prototyping, and operations and provides dual use pathways that reduce risk while expanding market reach.

Life Sciences (Emerging Opportunity Area)

Scope: Biotherapeutics discovery and development (e.g., RNA based therapeutics, regenerative medicine, neurotherapeutics, geroscience); medtech and bioinstrumentation product development; and digital health solutions for aging and neuropsychiatric conditions.

Rationale: Brown and URI's nationally recognized strengths in neurobiology, neuroscience, and aging biology; Brown's Carney Institute for Brain Science and new RNA Center; URI's George and Anne Ryan Institute for Neuroscience, capabilities in the College of Engineering, including biomedical engineering, College of Health Sciences, College of Nursing and College of Pharmacy; integrated health systems in Providence; and state investments (e.g., the Rhode Island Life Sciences Hub, including its investment in Ocean State Labs) produce a differentiated platform. While the industrial base is still maturing, targeted translational infrastructure and coordinated branding can position Rhode Island credibly within the broader New England biosciences corridor.

Resilience and Risk Management Technologies (Opportunity to Grow a New Cluster)

Scope: Industrial loss prevention technologies; environmental risk assessment and modeling; and resilient coastal engineering; energy/grid resilience.

Rationale: FM's world class research and certification campus, together with URI and Brown's coastal and hazard modeling capabilities and Rhode Island's living lab geographies, create unique conditions for advancing and validating resilience technologies. Demand is rising across insurers, infrastructure owners, and municipalities; a formal commercialization interface can translate research into certified products and services with national market reach.

Agriculture and Food Innovations (Opportunity to Grow a New Cluster)

Scope: Aquaculture and fisheries; novel food product design and development; "smart" agriculture/food systems innovation (including controlled environment agriculture and precision/traceability solutions); and food as medicine.

Rationale: Rhode Island's coastal location, URIs Land and Sea Grant research and Cooperative Extension programs, the Department of Nutrition in URI's College of Health Sciences, Johnson & Wales University College of Food Innovation & Technology (CFIT) Ecolab Center for Culinary Science's FDA Process Authority for regulatory enablement, and a robust culinary entrepreneurship base catalyzed by Hope & Main point to a science led, high value food economy. Addressing mid-scale processing and coordinating translational research can help retain and scale companies and connect product innovation to regional markets.

In addition, four foundational cross cutting capabilities underpin these opportunities and must be maintained and expanded:

- **Advanced materials** link materials chemistry, mechanical engineering, and manufacturing science to produce components that are lighter, stronger, more durable, and increasingly “smart.” It supports and differentiates multiple clusters—including defense, marine trades, offshore wind, and medtech—by enabling performance that off-the-shelf materials cannot deliver.
- **Artificial Intelligence and Cyber Applications** present a forward-looking area where ongoing rapid evolution of capabilities necessitates ongoing investment in R&D and innovation capabilities as a fundamental driver of applications across all major science and technology fields. This capability extends beyond generic software development; it focuses on deploying data-driven models and secure architectures in mission-critical, often sensor-rich environments—naval platforms, power grids, financial systems, and health networks. As such, it functions as an overlay that enhances the performance, autonomy, and resilience of physical assets and industrial processes.
- **Industrial Design and Product Development** functions as a key differentiator for Rhode Island’s commercialization ecosystem that translates Rhode Island’s research and engineering into integrated, manufacturable products by coupling human factors, digital interfaces, materials, and production methods. Historically rooted in design-intensive industries like jewelry and consumer products, it now underpins innovation in areas such as medtech and defense systems, where user-tested prototypes are rapidly refined and scaled for regulated, high-performance applications.
- **Ocean Sciences** provides a foundational environmental and biological systems capability for Rhode Island’s maritime, defense, energy, and climate-resilience opportunities. Whereas Maritime and Naval Systems focus on engineered solutions operating in the ocean, Ocean Sciences concentrates on understanding the ocean as a complex, dynamic system—its biology, physics, biogeochemistry, ecology and evolution, and ecosystems-level interactions with human activity. This knowledge is essential both for sustainable resource use and for technical performance: vessel acoustics, offshore structures, fisheries management, and coastal adaptation all depend on R&D capabilities in this area.

These are long lived assets (specialized faculty, testbeds, cyber ranges, shared equipment) that enable multiple growth areas to advance simultaneously and help the ecosystem adapt to evolving market and technology demands.



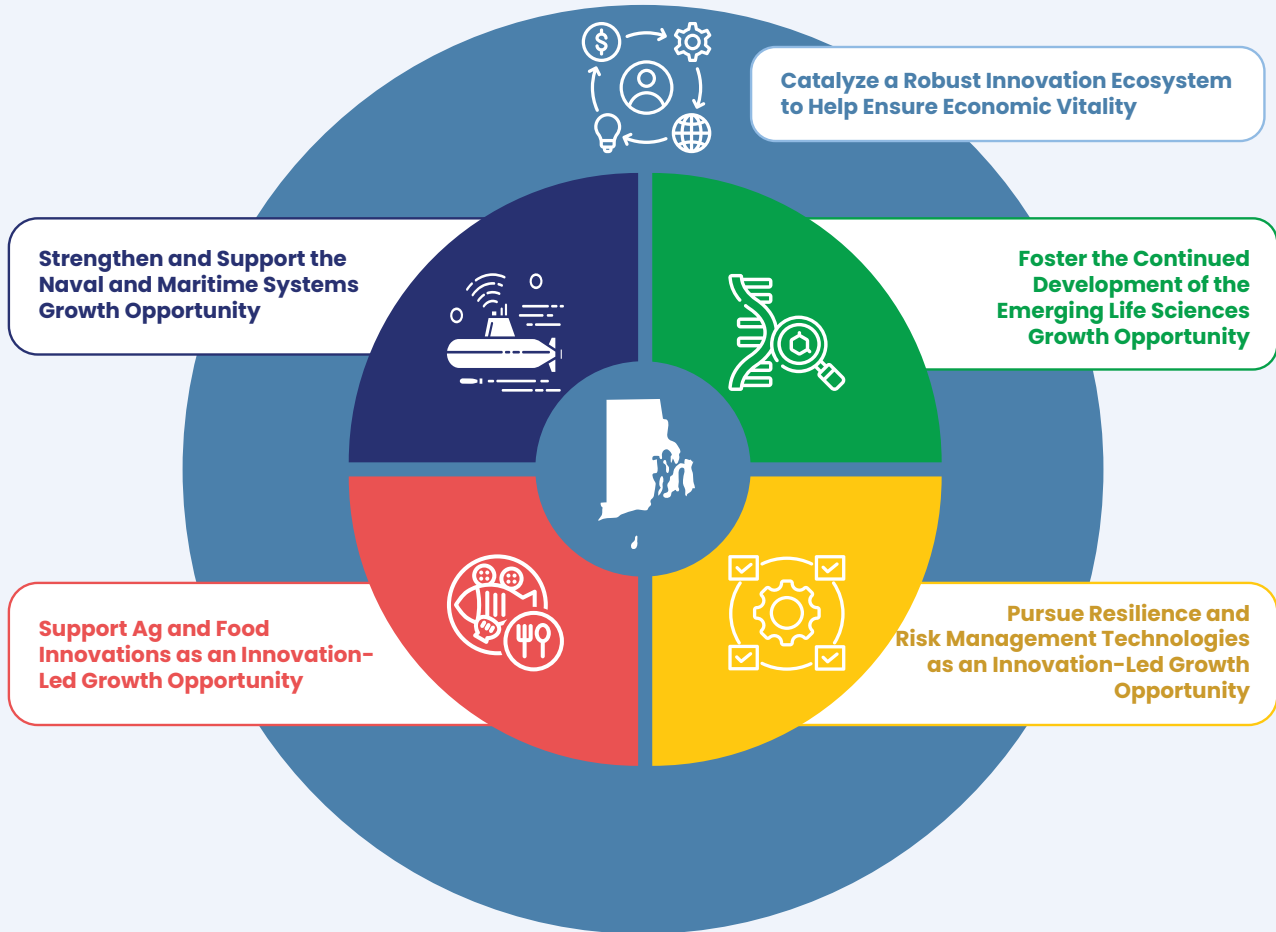
Credit: Polaris Tech Bridge BlueTIDE event

Rhode Island's S&T Framework

"Business-as-usual" will not be sufficient if Rhode Island is to fully convert its research strengths, place-based advantages, and entrepreneurial energy into sustained growth in high-quality jobs and rising living standards. The Ocean State's small scale and dense networks can be a strategic advantage—but only if they are organized to move faster from discovery to deployment, and from pilot to scale. Rhode Island already has many of the essential building blocks of an innovation economy: strong research institutions, active cross-sector partnerships, federally supported research and training platforms, and state investments intended to accelerate translation and commercialization. What is needed now is a coordinated strategy that strengthens the "connective tissue" of the ecosystem—so that market-relevant innovations consistently traverse the innovation continuum and reach significant markets with the workforce, capital, and infrastructure required to scale.

Rhode Island's science and technology leadership is increasingly expected to do more than convene; it must also coordinate, align, and demonstrate impact. STAC was created to make science and technology innovation central to Rhode Island's leadership agenda and is charged with helping ensure that research and technology development are leveraged for commercialization, innovation, economic development, and jobs. At the same time, Rhode Island's role in national competitiveness programs is evolving, such as Rhode Island's designation as a NSF Established Program to Stimulate Competitive Research (EPSCoR) jurisdiction—shifting toward deeper expectations for jurisdiction-wide coordination, ecosystem analysis, and alignment to a current statewide S&T plan. These realities underscore a central point: innovation outcomes do not happen automatically. They are the result of intentional design choices, sustained investment, and disciplined execution across institutions and sectors as illustrated in Figure ES-2.

Figure ES-2.
Rhode Island's S&T Framework



This S&T Framework applies a line-of-sight approach to identify, design, and prioritize Rhode Island's most actionable growth opportunities where there is a clear pathway to significant markets, thereby enabling Rhode Island to differentiate itself nationally and create the conditions for sustained commercialization, productivity growth, and new-venture scale.

The strategies and actions that follow are designed to strengthen Rhode Island's innovation ecosystem in ways that are selective, focused, and measurable. They build directly on STAC's mission to increase R&D impact, encourage entrepreneurship, and enable innovation through an environment rich in talent, capital, and ideas. They also reflect the practical realities of building a modern innovation economy: translation requires more than great research—it requires predictable commercialization pathways, cross-institution coordination, risk-capital readiness, supportive infrastructure, and continuous workforce development aligned to priority innovation areas.

Strategy 1: Strengthen and Support the Naval and Maritime Systems Growth Opportunity

Rhode Island's Maritime and Naval Systems opportunity area represents one of the state's most significant and distinctive economic assets. Extraordinary growth opportunities driven by Navy modernization programs create significant market demand, while at the same time innovative companies are seeking to pursue diversification strategies into new dual use markets. Beyond traditional submarine and undersea warfare systems, dual-use maritime technology represents an emerging high-growth opportunity critical to Rhode Island's long-term competitiveness. Autonomous underwater vehicles, unmanned surface vessels, underwater infrastructure robotics for offshore energy and subsea cable repair, and advanced marine sensors for climate observation and resource management constitute rapidly expanding commercial markets that can leverage existing defense-funded research and manufacturing capability. These technologies require substantial capital for prototype development, in-water testing, and manufacturing scale-up representing investment thresholds. If Rhode Island does not have established capital formation mechanisms and integrated testing infrastructure, these companies may relocate to regions with more developed innovation ecosystems, representing a permanent loss of economic opportunity and entrepreneurial leadership in commercial "blue tech" markets.

Rhode Island's current organizational fragmentation presents a potential challenge to its ongoing capacity to drive comprehensive state-level economic outcomes. This fragmentation dilutes the impact of investments, delays technology transition, and undermines potential for even larger state-level economic impact. Simultaneously, the cluster faces an acute workforce crisis, with technician and skilled trades workers constrained by aging populations and insufficient pipeline development, deep engineering expertise distributed across small and medium-sized enterprises with more limited capacity to attract and retain, and a supplier ecosystem requiring substantial modernization investment.

Without coordinated intervention, Rhode Island risks losing its leadership position as a coastal hub for marine and ocean technologies across multiple avenues: technology leakage as companies relocate to defense hubs with better-integrated ecosystems, failure to transition Navy-funded research into commercial dual-use opportunities, reducing return on flows of federal R&D investment, workforce supply constraints limiting submarine manufacturing expansion and supplier scaling, and supplier modernization failures that compromise supply chain reliability during critical military production cycles. The next generation of defense contracts focused on autonomous maritime systems, AI-enabled undersea capabilities, and advanced marine materials is likely to flow to regions demonstrating integrated innovation ecosystems that address these requirements.

This strategy addresses these challenges through five coordinated actions establishing unified industry coordination, integrated testing infrastructure, collaborative technology development pathways, targeted capital formation mechanisms, and comprehensive supply chain and workforce modernization. Collectively, these actions create the organizational architecture and resource mobilization necessary to modernize Rhode Island's research and industrial assets and maintain a sustained competitive advantage, supporting the state's research enterprise while also generating thousands of jobs and reinforcing the state's role as a global center for maritime and naval systems innovation.

Action 1: Establish a **Maritime and Naval Innovation Advisory Council**—an industry-led, central coordination mechanism and single point of entry that aligns priorities, reduces duplication, and improves access to partners, facilities, and programs.

Action 2: Develop an **Integrated Maritime Testing and Prototyping Infrastructure Network**—a transparent tank-to-bay corridor with shared protocols, scheduling, and access (including NUWC facilities, in-water ranges, URI labs, Roger Williams University Bristol Campus, and the Hereshoff Marine Museum in Bristol).

Action 3: Expand and diversify **Collaborative Technology Development Programs** focused on dual-use maritime technologies—challenge funding, CRADAs, accelerators, and facilitated “on-ramps” for SMEs.

Action 4: Establish **sector-specific financial resources** for capital-intensive early-stage ocean and maritime technology companies based in Rhode Island—co-investment/matching mechanisms that de-risk prototype and validation stages.

Action 5: Expand **advanced manufacturing supply-chain and workforce development** programming—supplier modernization (e.g., CMMC), apprenticeships, and Industry 4.0 adoption to meet defense and commercial demand.

Strategy 2: Foster the Continued Development of the Emerging Life Sciences Growth Opportunity

Significant recent state investment and emerging institutional capacity in Rhode Island’s emerging life sciences cluster have created momentum that must be sustained and focused to continue to grow the industry base into an economically significant industry cluster. The state has made a major commitment through the Rhode Island Life Science Hub (RILSH), with funding supporting cluster growth and ongoing development in the 195 Innovation District focused on life sciences infrastructure including Ocean State Labs incubator (planned opening January 2026), Brown Health lab facilities, and State Health Laboratories consolidation. This investment represents recognition that Rhode Island must build physical infrastructure, convening capacity, and commercialization support to translate research excellence into economic outcomes.

Rhode Island is positioned to further leverage its research institutions and emerging biosciences translation and digital health ecosystem to catalyze broader life sciences commercialization and build a regionally-differentiated innovation cluster. However, Rhode Island’s life sciences research assets must orient toward technology transfer and commercialization, and the state must expand on recent investments and organizational capacity to grow life sciences as a true industry cluster backed by a unique value proposition based on focused differentiation in areas where research excellence, clinical partnerships, design and manufacturing expertise, and lower operating costs create distinctive advantages.

Without strategic focus and continued investment in commercialization infrastructure, Rhode Island risks dissipating recent momentum through researcher and company migration to better-supported ecosystems, failure to convert applied research into IP and startups, insufficient lab and manufacturing space constraining company scaling, and lack of differentiated market positioning leading to perception as a satellite of other New England biosciences hubs rather than a distinctive cluster. This strategy addresses these challenges through three coordinated actions:

Action 6: Coordinate **Neuroscience and Aging** research clusters into a focused tech-transfer brand and consortium—unified pipeline, shared industry interface, and priority areas for translation (e.g., digital biomarkers, neurotherapeutics, senescence).

Action 7: Expand support for translational activity—shared cores and computational biomedicine, proof-of-concept funding, and structured regulatory/reimbursement guidance to move assets from discovery to investable readiness.

Action 8: Expand economic development support—wet-lab and scale-up space, “C-suite-for-hire” and EIR networks, and targeted attraction/retention strategies aligned to Rhode Island’s differentiated value proposition.

Strategy 3: Pursue Resilience and Risk Management Technologies as an Innovation-Led Growth Opportunity

Rhode Island possesses distinctive assets enabling the state to establish a differentiated, forward-looking innovation cluster focused on resilience and risk management technologies, an area with demonstrated and growing market demand, clear commercial pathways, and natural advantages in research capability, testing infrastructure, and geographic positioning. FM’s world-leading research facilities, IP portfolio, and direct market access to a global customer base of major corporations and institutions represents a near-term anchor and innovation catalyst. In addition, Rhode Island’s research base similarly includes distinctive capability in ocean engineering, coastal systems, and climate change hazard modeling. These research capabilities demonstrate the technical foundation and domain expertise necessary to scale innovation activity in resilience and loss prevention over time. Finally, Rhode Island’s coastal geography creates both distinctive market demand and natural testing advantages.

This opportunity aligns with sizable markets, where risk of losses from natural disasters and industrial incidents are driving demand for innovative loss prevention and risk analysis solutions from insurance companies, governments, and enterprises. Establishing Rhode Island as a hub for resilience and risk management technology innovation would enable the state to pursue a differentiated innovation identity that complements rather than competes with other regional innovation ecosystems while also providing the potential to further diversify existing industries into new markets. This strategy seeks to pursue this opportunity through two coordinated actions:

Action 9: Establish a **signature loss-prevention and resilience technology commercialization** initiative—a public-private interface that brokers testing/certification access (e.g., FM labs), coordinates pilot deployments and provides early de-risking capital.

Action 10: Develop the environment for Rhode Island to serve as **a regional testing and development hub**—preferential sites, living-lab agreements with municipalities/utilities, and coordinated branding to attract firms and capital.

Strategy 4: Support Ag and Food Innovations as an Innovation-Led Growth Opportunity

Rhode Island's ag and food innovation ecosystem represents a distinctive and under-leveraged asset for innovation-led growth. Unlike vertically integrated agricultural regions, Rhode Island's strengths are distributed across the agri-food value chain—spanning sustainable aquaculture, specialty food product development, and advanced packaging and process innovation—underpinned by enabling technologies in controlled environment agriculture (CEA), precision/smart agriculture, and marine-derived functional ingredients and bioactive compounds.

Demand-side dynamics reinforce the opportunity. Converging pressures—climate adaptation, consumer demand for sustainable and health-oriented products, supply chain resilience imperatives, regulatory shifts in packaging, adoption of precision agriculture and automation, and cold chain modernization—are reshaping market requirements across production systems, enabling technologies, and distribution. Rhode Island is well positioned for high-value specialty products (premium oysters, artisanal foods, functional ingredients), demonstration/validation platforms (CEA systems, sustainable/active/smart packaging), and enabling technologies (sensors, process control, and traceability) rather than commodity production where the state cannot achieve cost advantages.

Yet, the cluster sits at a critical inflection point. Systemic gaps are forcing promising companies to relocate to scale production eroding local value capture and talent retention. Without coordinated intervention, Rhode Island may miss the chance to build a distinctive identity in high-value ag-food innovation that complements its maritime and life sciences opportunities, thereby undermining economic diversification and resilience goals. Conversely, decisive action can convert existing strengths into a cohesive, S&T-led growth engine with near-term wins and durable competitive differentiation. This strategy seeks to pursue this opportunity through three coordinated actions:

Action 11: Create a **specialized translational research initiative** in ag-food—linking aquaculture/CEA, functional ingredients, process/packaging innovation, and regulatory enablement to line-of-sight products and platforms.

Action 12: Establish **second-stage manufacturing infrastructure and intermediate processing capacity**—the “missing middle” (co-packing, cold chain, HACCP/PCQI) to retain and scale companies in state.

Action 13: Increase **innovative research around “smart” agriculture and the agri-food nexus**—precision aquaculture, food-as-medicine trials, supply-chain modeling, and shared pilot facilities.

Strategy 5: Catalyze a Robust Innovation Ecosystem to Help Ensure Economic Vitality

Growth in Rhode Island's identified opportunity areas will not happen in a vacuum. To translate research into jobs, firms, and durable prosperity, the state must simultaneously invest in the foundational conditions that make innovation and commercialization possible. National trends underscore why Rhode Island must catalyze a coordinated, adaptive innovation ecosystem rather than relying on legacy, ad hoc approaches to technology transfer and commercialization. National evidence illustrates that it takes proactive leadership to turn campus discoveries into regional economic gains. In addition, in an environment in which it is critical to diversify academic revenue streams, creating stronger inter institutional collaborations to build synergies and eliminate duplication, catalyzing support for startup formation, and developing an intentional focus on value-added industrial relations will help create new and expanded funding models.

Catalyzing Rhode Island's innovation ecosystem therefore means targeted investments in three complementary pillars. First, creating a robust, proactive commercialization system that validates market need, develops prototypes, navigates regulatory pathways, and brings new products to market will build a pipeline of deal flow in the growth opportunity areas. Second, a more holistic industrial relationship building and contracting process so that collaborations move faster and at lower cost. Third, a statewide I Corps style training and mentor network that pairs principal investigators and student teams with serial entrepreneurs and industry experts to accelerate investor readiness and success. Furthermore, these pillars are mutually reinforcing and foster a more robust innovation ecosystem.

The economic rationale is straightforward: these investments convert research capacity into durable prosperity by scaling startups, expanding industry partnerships, and attracting risk capital. By adopting these practices, Rhode Island can systematically translate research into jobs and firms, and build a resilient, connected ecosystem that sustains growth through industry cycles. In short, catalyzing a robust innovation ecosystem is not optional—it is the enabling platform for Rhode Island's long term economic vitality. This strategy focuses on these investments through three coordinated actions:

Action 14: Create a **proactive commercialization system** to build a pipeline of deal flow—market validation, proof-of-commercial-readiness, venture-readiness services, and startup-friendly terms.

Action 15: **Ensure industrial engagements** are advanced between academic institutions and corporate partners—dedicated industry contracting, standard terms/templates, and faster cycle times.

Action 16: **Invest in entrepreneurial support** within academic research institutions—statewide I-Corps-style training, mentors/EIRs, fractional C-suite talent, and structured founder pathways connected to priority opportunity areas.

Taken together, these five strategies aim to ensure Rhode Island's innovation economy is not defined by isolated wins, but by a repeatable system—one that turns research strengths into commercial outcomes, raises productivity in existing industries, and builds inclusive pathways to high-wage opportunity.

A Call to Action

Rhode Island possesses the assets to succeed in a knowledge-driven economy—deep research capability, strong institutional networks, a distinctive coastal and defense-linked identity, and momentum in key S&T domains. But assets alone do not produce prosperity. Prosperity comes from execution: connecting research to market demand, enabling firms to scale without leaving the state, and ensuring Rhode Islanders can access the skills and opportunities those innovations create.

This plan invites leaders across industry, higher education, government, and the broader innovation community to align around a shared agenda that turns research strengths into market impact. Expectations for statewide coordination are rising; the moment requires not only a strategy, but a system that delivers outcomes. By focusing on growth areas with clear line-of-sight to significant markets and by systematically strengthening commercialization, infrastructure, capital, and talent pipelines, Rhode Island can make innovation repeatable—and convert research strengths into scaled industries, higher-wage jobs, and long-term resilience.

